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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/922,479	08/03/2001	Thomas Zettler	J&R-0694	7212
24131	7590	03/31/2005	EXAMINER	
LERNER AND GREENBERG, PA P O BOX 2480 HOLLYWOOD, FL 33022-2480			CHUNG, PHUNG M	
			ART UNIT	PAPER NUMBER
			2133	
DATE MAILED: 03/31/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/922,479

Applicant(s)

ZETTLER, THOMAS

Examiner

Phung My Chung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☒ Claim(s) 27-28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4 and 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Irrinki et al (6,067,262).

As per claim 1, Irrinki et al disclose the invention substantially as claimed, comprising the step of:

Providing an integrated circuit that includes a self-test device;

Starting to perform a test of the integrated circuit with the self-test device; and

Subsequently, connecting the integrated circuit to an external testing device that perform a function selected from the group consisting of reading out results of the test and evaluating the results of the test. (See Fig. 2, col. 7, lines 28-44).

As per claim 2, Irrinki et al further comprises completing the test before performing the step of connecting the integrated circuit to the external testing device. (See col. 7, line 45 to col. 8, line 3).

As per claims 3-4, Irrinki et al further disclose at least partially completing the test while performing a function selected from the group consisting of temporarily storing the integrated circuit and transporsting the integrated circuit to the external testing device. (See col. 7, line 66 to col. 8, line 3).

As per claim 11, this claim is also rejected under the same rationale as set forth in claim 1.

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As per claim 12, this claim is also rejected under the same rationale as set forth in claim 2.

As per claims 13-15, these claims are also rejected under the same rationale as set forth in claims 3-4.

3: The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Irrinki et al (6,067,262) in view of Krug (4,961,053).

As per claims 5-8, the teaching of Irrinki et al have been discussed above. Irrinki et al do not disclose: after testing, taking at least parts of the integrated circuit out of operation after the parts have been tested, including not supplying a clock signal or a supply voltage, which is needed to operate or supply the integrated circuit with power, to the parts of the integrated circuit. However, Krug discloses such steps: after testing, taking at least parts of the integrated circuit out of operation after the parts have been tested, including not supplying a clock signal or a supply voltage, which is needed to operate or supply the integrated circuit with power, to the parts of the integrated circuit. (See col. 3, lines 25-31 and col. 6, lines 46-55). Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to incorporate the teaching of Krug into the invention of Irrinki et al so that it would reduce the number of functional elements of the circuit component.

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As per claims 9-10, Krug further disclose providing the integrated circuits on at least one wafer. (See col. 2, lines 55-66).

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 16-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krug (4,961,053) in view of Irrinki et al (6,067,262).

As per claim 16, Krug discloses the invention substantially as claimed, comprising:

Components;

A device for, at particular time, taking specific ones of the component out of operation;

The particular time selected from the group consisting of during the testing and after the testing. (See Fig. 4, col. 50, lines 19-43). Krug does not disclose a self-test device for testing the components. However, Irrinki et al disclose a self-test device for testing the components. (See col. 2, lines 1-33). Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to incorporate the self-test device for testing the components as taught by Irrinki et al into the invention of Krug so that it can test the integrated circuit internally without using external tester to

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reduce testing time, reduce test development costs, reduce field diagnosis and repair costs.

As per claim 17, the teaching of Krug and Irrinki et al have been discussed above. Krug further disclose: a test result memory for receiving data from the test results and for storing the data. (col. 3, lines 53-54).

As per claims 18-21, Krug further discloses a device for prevents a clock signal or a supply voltage, which is needed to operate the components from being applied to the specific one of the components. (See col. 3, lines 25-30 and col. 6, lines 47-55). The result memory (6) for receiving and storing test result data. (See col. 3, lines 53-54).

As per claims 22-23, Krug further discloses at least two different points for receiving voltages and signals that have to be supplied so that the self-test device can test the components and at least two different points are electrically connected together. (See col. 5, lines 19-21 and col. 5, line 63 to col. 6, line 4).

7. Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Krug (4,961,053) and later in view of Irrinki et al (6,067,262).

As per claim 24, the admitted prior art discloses: a plurality of integrated circuit that are configured for being separated apart by a subsequent cutting process. (See pg. 2, lines 4-10). The admitted prior art further discloses each of the plurality of integrated circuits including a self-test device located in the integrated circuit. (See pg. 2, lines 12-25). The admitted prior art does not disclose that the plurality of integrated

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circuits are at least partially electrically connected to one another. However, Krug discloses that the plurality of integrated circuits are at least partially electrically connected to one another. (See col. 1, lines 9-19). Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to incorporate the plurality of integrated circuits at least partially electrically connected to one another as taught by Krug into the invention of admitted prior art so that it can control these connections for producing test signals, clock signal, control signal and the like.

As per claims 25-26, Krug further discloses a wafer substrate; and

Electrical connections formed by conductor tracks that are located on the wafer substrate and that electrically connect the plurality of the integrated circuits, wherein the plurality of the integrated circuits include points to which signals selected from the group consisting of voltages and test signals must be supplied such that the self-test device can test the plurality of the integrated circuits. (See col. 2, lines 64-68; col. 5, lines 19-21 and col. 5, line 63 to col. 6, line 4).

8. Claims 27-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phung My Chung whose telephone number is 571-272-3818. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on 571-272-3819. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Phung My Chung
Primary Patent Examiner